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## **ABSTRACT OF THE DISCLOSURE**

A data processing system 2 has a base data address region 24 and a bit-band data address region 28. Memory accesses to the bit-band data address region 28 are converted into memory accesses to the base data address region 24. In the process of this conversion specific bits within the base data address region 24 are picked out for access whether that be via a read-modify-write operation or a masked read operation as appropriate. In this way, bit access is provided to data values within the base data address region 24 by addressing specific address locations within the bit-band data address region 28.

[Figure 3]